

Castlemaine Naturalist



AUGUST 1979

President: Mrs R. Mills
Secretary: Mr G. Sitch

Treasurer: Mr L. Bransgrove
Newsletter Ed. : Mr E. Perkins

General meetings are held at 8.00 p.m. on the second Friday of each month, and Business meetings on the fourth Thursday of each month, at the Castlemaine Education Centre, Mostyn Street, Castlemaine. Visitors and prospective members are invited to attend the club's sessions.

Items printed in this newsletter do not necessarily reflect the opinion of the Club.

Orchids of the Castlemaine District by Mrs R. Mills

Number 23 of a series PTEROSTYLIS ALATA

The Striped Greenhood

Known from Harcourt, Muckleford and Barkers Creek, the Striped Greenhood is a very striking flower with its neat green and white striped hood with a touch of reddish-green striping, and a reddish-brown tip to its hood. Specimens vary, most having more red-brown, but the local specimens I have seen are as described above. The solitary flower is erect, and up to 2.5 cm. The lateral sepals stand above the hood in slender tails; the sinus, or joint of the sepals, is very high and inclined to "jut", and the pointed brown tongue is short, barely clearing the sinus. The whole plant is 15-25 cm. high, with several spreading bracts each increasing with size up the stem. There are no leaves at flowering, but a rosette appears later.

It flowers in autumn and winter.



CONTROL BURNING

Control Burning (or Prescribed Burning) is a programme of low intensity burning carried out as a method of fire control. The aim is to remove litter from the forest floor, and so reduce the intensity of any wildfire, and to increase the chances of controlling the wildfire.

After experiencing the effects of control burning in other districts I have been opposed to control burning. Some reasons for this opposition are

1. Over-frequent burning will produce undesirable changes in the bush, and destroy some of the very features that we would wish to preserve. The first fire in an undisturbed forest will generally give thick regeneration, but further fires in quick succession, before shrubs have a chance to produce seed, will remove the shrubs from the bush. I have seen this happen, with beautiful bushland being replaced by grassland. Under such circumstances the bush becomes even more fire prone. This effect of over-frequent burning can also be seen along some roadsides, where shrubs have been completely replaced by grass.
2. Burning gives a chance for noxious and other weeds to become established. Generally, weeds are prolific seeders, and the more frequent the fire, the greater chance there is for the weeds to become established.
3. Theory and practice often diverge. I have seen control burns where the fire has been so intense that even the leaves at the tops of trees have been burnt, and where large areas have been burnt without any refuges left.
4. I have seen burning programs over important wildlife/wilflower areas take place without any assessment or monitoring by the burning authority as to the changes made to the areas as the result of burning, or even any acknowledgement that there was any need to do so, despite clear evidence to the contrary.

Many naturalists are also unhappy about burning in spring; in Nature most burns are in summer or autumn. A spring burn can disturb nesting of birds and destroy plants before seed is set.

Control Burning on Mt Alexander

Recently I was taken on a tour to Mt Alexander by Mr Stump and Mr Smith, of the District Forest Office.

The first stop was to see the effects of an autumn wildfire of a few years ago, at the north-west base of the mountain. The

forest shows no sign of recovery, and much of the area is now bare of trees. It would seem to show that Mt Alexander is very sensitive to fires. Mr Stump believes that the forest is much less able to recover after an autumn fire than after a spring fire. Autumn fires elsewhere in the district (e.g. in Kalimna support this view.

Next stop was in the Shepherds Flat area, where the Forests Commission conducted a spring burn a few years ago. The forest here is Messmate/ Manna Gum, with a complete absence of shrubs. It would seem to be a model burn, without any damage at all to the trees. Obviously the fire intensity was far too low for tree damage to result. The ground vegetation is mainly annual, and I could see no difference in the composition of burned and unburned areas. The forest contains many old trees and a profusion of fallen timber. Hollow limbs are common on the trees and on the ground. The fire burned twigs, leaf litter etc but did not affect the fallen limbs. There were many unburned patches in the burned areas; these would provide refuge for animals during the burning. The edges of the forest were not burned, so reducing the chance for weed or grass invasion.

The final stop was at the area burned during a lightning strike. Only a small area was burned before the fire was brought under control, but fire damage was more extensive. For example, some fallen logs were completely consumed in the fire.

For isolated areas of bushland such as Mt Alexander, surrounded by farm land, the effect of a wildfire can be particularly serious. If all of the forest is burned, all of some species of wildlife can be killed and isolation makes recolonisation difficult or impossible. The steep terrain makes fire fighting very difficult.

The Forests Commission present program of control burning would seem to be playing an important part in keeping Mt Alexander as we would want it kept.

I would like to see some parts of the mountain kept completely free of fire for some considerable period of time. Perhaps the absence of undershrubs is caused by frequent fires in the past, and perhaps in time a different type of vegetation will appear.

E. Perkins.

ADDITIONS TO MT TARRENGOWER PLANT LIST 14/7/79

Pultenaea platyphylla	Bush Pea
Hypoxis hookeri	Tiny Star
Hydrocotyle laxiflora	Stinking Pennywort
Hirschfeldia incana	Hoary Mustard
Drosera peltata	Pale Sundew

VICTORIAN FORESTS AND TREES

(This is an extract from "The Goldfields and Mineral Districts of Victoria" by R. Brough Smyth, F.G.S., 1869. The article has been supplied by Mr F. Blake)

The approximate areas occupied by forest trees and scrubs in Victoria are estimated by the State Forest Commissioners as follows:-

Stringy bark and messmate	30 000	sq. miles
Mallee Scrub	14 000	sq. miles
Eucalypti of comparatively small dimension, as box, yellow box, colonial apple box, peppermint etc.	14 000	sq. miles
Large white gums of various kinds, Eucalyptus amygdalina etc	5 000	sq. miles
Red Gum, Eucalyptus rostrata	3 000	sq. miles
Oak, Murray Pine	500	sq. miles
Ironbark	500	sq. miles
Lightwood	500	sq. miles
Honeysuckle, wattle, and other low-sized trees not otherwise specified	500	sq. miles
Sassafras, beech and other umbrageous trees in sheltered gullies	300	sq. miles
Tea tree scrub	200	sq. miles
	69 000	sq. miles
Extent of open country	17 831	sq. miles
Total area of the colony	86 831	sq. miles

These figures were arrived at as carefully as under the circumstances, was practicable, but since the map showing the vegetation of the colony was prepared, some of the areas require to be recomputed. For instance, the country occupied by the mallee scrub is found to be not 14 000 sq. miles but rather more than 18 000 sq miles and the area of the open country as corrected 13 831 square miles and is much nearer the area occupied by the basalt.

Many of the trees in the above table are intermixed with those characteristic of the three areas, and though in the aggregate they may cover large areas, they do not appear as distinct features on the map.

Large trees In the lofty ranges bordering the basin of the river Yarra, where rains are frequent, the climate moist, and the soils rich, there are very large trees.

Respecting the timber trees of this tract Dr Ferdinand Von Mueller, the Government Botanist, thus writes: "At the desire of the writer of these pages, Mr D. Bogle measured a fallen tree of *Eucalyptus amygdalina*, in the deep recesses of Dandenong and obtained for it the length of 420 feet, with proportions of width indicated in a design of monumental structure placed in the exhibition; while Mr G. Klein took the measurements of a eucalyptus on the Black Spur, ten miles distant from Healesville, 480 feet high!; Mr E.B. Hynes obtained at Dandenong, as measurements of height of a tree of *Eucalyptus amygdalina*: Length of the stem from the base to the first branch, 295 feet; diameter of the stem at the first branch, 4 feet; diameter of the stem where broken off, 3 feet, total length of the stem up to place of fracture 365 feet; girth of stem three feet from the surface 41 feet. A still thicker tree measured three feet from the base, 53 feet in circumference. Mr George Robinson, in the back ranges of Berwick, the circumference of a tree of *Eucalyptus Amygdalina* to be 81 feet at a distance of 4 feet from the ground, and supposes this eucalypt, towards the sources of the Yarra and LaTrobe Rivers, to attain a height of half a thousand feet. The same gentleman found *Fagus Cunninghamii* to gain a height of 200 feet and a circumference of 23 feet.

It is not at all likely that in these isolated enquiries chance has led to the really highest trees, which the most secluded and the least accessible spots may still conceal. It seems however, almost beyond dispute that the trees of Australia rival in length, though evidently not in thickness, even the renowned forest giants of California, *Sequoia Wellingtoni* the highest of which, as far as the writer is aware, rise in their favourite haunts at the Sierra Nevada to about 450 feet.

In the places where these large trees grow the quantities of timber supported by the soil is also remarkable. In the State Forest of Dandenong it was found by actual measurement that an acre of ground contained twenty large trees of an apparent average height of 350 feet, and 38 saplings of an apparent average height of 50 feet, the land being occupied besides by a dense undergrowth of large fern trees, musk, dogwood etc.

In one of the densest parts of the Mount Macedon State Forest, near Messrs. Carpenters' saw-mills, an acre of messmate was found to contain 42 large standing trees and 12 saplings. Many of the larges of these trees were from 6 to 7 feet in diameter four feet from the ground and from 200 to 220 feet high.

Wherever miners have pursued their labours the trees have been cut down and we see acres of bare short stumps where a few years ago there was a stately growth of eucalypti. There has been

so much waste and so much wanton destruction, that no time should be lost in repairing the damage, if indeed there is yet time to repair it with any hope of the new growth being available before some of the mines are abandoned. The general interest of the miners have been sacrificed to the greed and caprice of those who until lately, ravaged the beautiful forests, as if the loftiest tree were the growth of a single night and was placed there merely to be irreparably damaged or destroyed as soon as found. A giant of the forest has been killed in order to furnish a sheet of bark, and the smaller kinds have been burnt for the purpose of boiling a kettle.

The evil is one which does not readily force itself prominently before those who are most deeply interested. It progresses day by day; but so slowly that few take the measure of its rate of advancement.

(Note: *Eucalyptus rostrata* = *E. camaldulensis*, River Red-Gum; *E. amygdalina* = *E. regnans*, Mountain Ash; *Fagus Cunninghamii* = *Nothofagus cunninghamii*, Beech Myrtle; 1 sq. mile = 2.59 sq km = 259 ha; 1 acre = 0.40 ha; 1 foot = 0.304 m; the tallest known Mountain Ash is 322 ft.)

NARDOO (From the Mt Alexander Mail, February 10, 1862)

(This article was supplied by Ray Bradfield, and is of particular interest in view of Ray's planned exhibit for the August meeting)

The lower Murrumbidgee correspondent of the Sydney Herald says that this plant is very plentiful throughout the whole of portion of the colony, and has long been known as an article of food, though going by different names in different localities. It is a four-leaved clover, bearing small black pods, about the size of acacia seeds. These pods are full of very small seeds, at first green and juicy, but when ripe very farinaceous. It is noticable that the leaves of the plant turn with the sun, facing the east in the morning, and the west at night. The Blacks here do not appear to eat nardoo, having probably a sufficiency of food without, but the aborigines at Menindee have always been known to partake of it. The plant only grows in flooded ground and although the leaves wither away in summer the seed pods last a considerable time. Sheep are very fond of nardoo and when eating it, make a curious noise, cracking the seeds between their teeth. Mr Greer, the post-master at Hay, has forwarded specimens from the locality to Professor Mueller, who pronounces them to be genuine Nardoo, similar to that eaten by the unfortunate explorers. (Burke and Wills, then only lately perished. R.B.)

CASTLEMAINE FIELD NATURALISTS CLUB PROGRAM

Meetings (8.00 p.m., Ed Centre)

Friday Aug 10 Wattles

Subject is wattles. Program by a panel of club members.

Thurs Aug 23 Business meeting

Friday Sept 14 Paddys Ranges

Program to be provided by the Maryborough F.N.C.

Thurs Sept 27 Business Meeting

Frid Oct 12 October meeting

Thurs Oct 25 Business meeting

Excursions

Sun Aug 12 Serendip.

Leader is Mrs B. Singleton.

10.00 Leave Ed Centre

11.45 Picnic at You-Yangs

1.30 Tour of Serendip (Fisheries & Wildlife Research Farm)

Sat-Sun Aug 25-26 Mildura

W.V.F.N.C.A. campout

Frid 24 Get together at Sunraysia Naturalist Research Trust club rooms, Old Powerhouse Building, Riverfront, Mildura. 8.00 p.m.

Sat 25 9.30 a.m. Meet at Club rooms for excursion to Hollands Lake, NSW, Dareton E. Barbeque lunch

Sat 25 6.30 p.m. Business meeting, St Margarets Hall; or Deakin Av and 11th Street
Speaker: Mr N.J. Favaloro
Subj: Birds of Trentham Cliffs Station.

A camp fire sing-song will follow at Apex Caravan Park.

Sun 26 9.00 a.m. Meet at Club rooms for excursion to Treantham Cliffs Station. 29 km. BBQ lunch-take own meat etc.

Excursions (cont)

Sat 15 Sept Dargile Reserve

Leave Ed Centre at 10.00 a.m.

Fri-Mon Sept 21-24 Wychitella

At the school camp. There is room for tents and caravans and room for beds inside the buildings. Leader is Mrs Mills.

Sun Sept 23 Muckleford

Ballarat S.G.A.P. excursion.

Meet 10.30 at Newstead (Mitchell monument), lunch at Goldfields Nursery. Leader: G. Sitch.

Monday Oct 1 Maryborough F.N.C., at 8 pm in Maryborough H.S. library. Dr L.H. Smith-subject is Lyrebirds.

Sat Oct 13 Maldon Walk.

Meet Ed Centre at 9.00 for transport to Maldon R.S. Walk back along railway line.

Fri-Sun Oct 12-14 Nelson

WVFNCA campout. Details have yet to be received from Portland FNC. Booking for the "Nelson Endeavour" boat trip on Glenelg River will be taken at our August meeting.

Mon Nov 5 Maryborough F.N.C., 8 pm, Maryborough H.S. Library. Dr J.H. Willis, "In the Steps of Baron Von Mueller"

Subscriptions

Half subscriptions now apply i.e.

Family \$2.50

Single \$1.50

Student 50 ¢

OBSERVATIONS CORNER

by G. Broadway

These observations are for the month of August, for discussion at the September meeting.

1. How many flowerets in a flower ball of Cootamundra Wattle?
2. What is the earliest flowering date of Silver Wattle.
3. Which plants have commenced flowering during the month since the last meeting?
4. Regarding Early Nancy - can you find male, female and complete flowers, i.e. flowers with both stigma and stamens? Can you find flowers with varying numbers of ovary lobes? What is the normal number?
5. How recently have you seen a Robin? Which one?
6. Have you yet heard a Pallid Cuckoo?
7. Have any insects shown activity yet? Such as
 - Ladybird beetles
 - Case Moths
 - Cup Moth Larvae
 - Aphids on Rose bushes
 - Imperial White Butterfly
 - Scale Insects, on lemon or Daphne
 - Cottony Cushion Scale on Wattles
8. In pools or streams look for Shield Shrimp, Lepidurus or Toe Biter.
9. Any sightings of birds carrying their young?

ITEMS FROM THE BUSINESS MEETING 26/7/79

Photoflora 1980 We have applied to hold Photoflora. Expected date is Mar-April 1980.

Rotary Club Display Mrs Singleton, Mr Bransgrove and Mrs Mills were elected to a subcommittee to arrange a Field Naturalists Club exhibit at the Rotary Fair in November.

Mt Beckworth Plant & Bird List These have been supplied by Maryborough FNC. Copies can be obtained from the Editor.

Obtaining Castlemaine Naturalist Distribution is from Editor, The Education Centre and Castlemaine Market, as well as at meetings. Copies will be posted if stamped and addressed manilla envelopes are supplied.

The City Council We have written to the Council, congratulating the Council on its tree-planting program

Treasurer A/c Ed Centre \$12 room hire, \$18.80 printing, credit balance is \$52.66